



(12) **United States Patent**
Fritsch

(10) **Patent No.:** **US 9,907,699 B2**
(45) **Date of Patent:** **Mar. 6, 2018**

(54) **ONE STEP TYMPANOSTOMY TUBE AND METHOD OF INSERTING SAME**

3,807,409 A 4/1974 Paparella et al.
3,897,786 A 8/1975 Garnett et al.
4,695,275 A 9/1987 Bruce et al.
5,053,040 A 10/1991 Goldsmith, III
(Continued)

(71) Applicant: **Michael H Fritsch**, Indianapolis, IN (US)

(72) Inventor: **Michael H Fritsch**, Indianapolis, IN (US)

(73) Assignee: **Domestic Legacy Limited Partnership**, Indianapolis, IN (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 336 days.

(21) Appl. No.: **13/764,875**

(22) Filed: **Feb. 12, 2013**

(65) **Prior Publication Data**

US 2014/0012282 A1 Jan. 9, 2014

Related U.S. Application Data

(60) Provisional application No. 61/668,407, filed on Jul. 5, 2012.

(51) **Int. Cl.**
A61F 11/00 (2006.01)

(52) **U.S. Cl.**
CPC **A61F 11/002** (2013.01); **A61F 11/00** (2013.01)

(58) **Field of Classification Search**
CPC A61F 11/00; A61F 11/002
USPC 606/109; 623/10
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,670,738 A 3/1954 Gibbons
3,636,943 A * 1/1972 Balamuth 601/2

FOREIGN PATENT DOCUMENTS

EP 0 445 946 B1 5/1994
WO WO2010045432 4/2010

OTHER PUBLICATIONS

PCT International Search Report dated Oct. 24, 2013 for Fritsch; International Application No. PCT/US13/50931.

Primary Examiner — Darwin Erezzo

Assistant Examiner — Martin T Ton

(74) *Attorney, Agent, or Firm* — E. Victor Indiano; Indiano & McConnell, LLC

(57) **ABSTRACT**

A tympanostomy tube for insertion into and residence in a tympanic membrane of a mammal, is disclosed. The tympanostomy tube includes a body including a first end portion, a second end portion, a central portion dispensed between the first and second end portions. An axially extending passageway has a first open end disposed adjacent the first end portion, and a second open end disposed adjacent the second end portion, and an axis extending between the first open end and second open end. The first end portion includes a relatively enlarged diameter, generally radially extending flange. The central portion includes a reduced diameter portion sized for extending through and residing in tissue of the tympanic membrane. The second end portion includes a relatively enlarged diameter second flange disposed adjacent the second end portion. The second flange includes a perimetral edge having an incising portion sufficiently sharpened to cut as a knife through the tympanic membrane during insertion of the tympanostomy tube in the tympanic membrane.

11 Claims, 12 Drawing Sheets

